



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,440	11/07/2003	Fumito Nariyuki	FS-F03211-01	9406

37398 7590 02/10/2005

TAIYO CORPORATION
2111 JEFFERSON DAVIS HIGHWAY
#412, NORTH
ARLINGTON, VA 22202

EXAMINER

CHEA, THORL

ART UNIT	PAPER NUMBER
----------	--------------

1752

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/702,440

Applicant(s)

NARIYUKI, FUMITO

Examiner

Thorl Chea

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11072003.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because the unit on the Absorption (abs) axe was not provided. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language "0.0005 g/m² or more and 0.4 g/m² or less" is unclear with respect

Art Unit: 1752

to the lower and the upper limit of the claimed since it encompasses the scope of more than 0.4 g/m² and less than 0.0005 g/m². The language such as "the amount of silver is from 0.0005 g/m² to 0.4 g/m² " is suggested if the scope of protection sought is in the range of 0.0005 g/m² and 0.4 g/m². See also similar languages in claims 3-6, 11-16.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5, 7-8, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Siga et al (US Patent No. 4,332,889) and Toya (US Patent No. 5,698,380). Siga discloses a heat developable substantially as claimed, except specifically discloses the coating amount of silver halide in term of silver is 0.0005 g/m² or more and 0.4 g/m² or less. See Siga et al in the abstract which discloses heat developable containing silver salt of long chain fatty acid, silver halide including silver iodide, binder and reducing agent for silver ion; silver iodide included in silver halide at least 30 mole % and more preferably 50 mole % in column 6, lines 43-68; column 5, lines 10-15, which discloses that silver iodide is superior in thermal stability to silver bromide and silver chloride. Toya discloses a heat developable material containing a silver halide grains have an average size of a0.1 nm to 100 nm and have average coverage rate of 0.005 g/m² to 1 g/m². See column 21-22, Table 2; column 2, lines 1-5; column 4, lines 29-33 the reducing agent in column 6, formula (A). It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the silver halide

Art Unit: 1752

within the silver halide taught in Siga et al within the conventional amount taught Toya with an expectation of producing a heat developable material with excellent processability and image quality.

6. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Siga et al (US Patent No. 4,332,889) and Toya (US Patent No. 5,698,380) as applied to claims 1-5, 7-8, 11 above, and further in view of Tsuzuki (US Patent No. 5,677,121). Tsuzuki discloses silver salt of an organic acid comprises silver salt of behenic acid not less than 35 mole % to 90 mole % to provide a heat-developable material that has excellent graininess and highly definite image. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the silver salt of an organic acid within the scope taught in Tsuzuki in the material taught in Siga with a reasonable expectation of providing to provide a heat-developable material which has excellent graininess and highly definite image, and thereby provide a material as claimed.

7. Claims 1-13, 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Uytterhoeven et al (US Patent No. 6,143,488) and EP 01096310 (EP'310).

Uytterhoven et al disclose a photothermographic material substantially as claimed. See abstract silver halide, the silver salt of an organic acid, an organic reducing for silver salt of an organic acid, binder and wherein silver halide having at least 80 mole % silver iodide; silver iodide including the alpha, beta and gamma phase in column 6, lines 6-25; silver salt of an organic acid including silver behenate in column 5, lines 25-45; antifoggants including polyhalogenated compound in column 9, lines 20-25; and the recording process using uv light in column 11, lines 15-35. EP'310 on page 37, [0090] discloses the use the amount of silver

Art Unit: 1752

halide from 0.03 to 0.6 g/m²; the compound having phosphoryl group on page 20, [0060]; reducing agent on page 6, [0038]; the organic polyhalogenated compound on page 65, [0276], [0277]; the process for forming an image including imagewise exposing using laser having laser output at least 10 mW on page 53, [0214], and silver halide grains having grain size between 20 nm to 120 nm on page 36, [0077].

Uytterhoeven et al may not disclose the coating amount of silver halide in term of silver is 0.0005 g/m² or more and 0.4 g/m² or less as claimed, but this amount has been known in EP'310, and it would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the silver halide within the silver halide taught in Uytterhoeven et al within the conventional amount taught EP'310 with an expectation of providing a sufficient image density, and thereby provide an invention as claimed.

8. Claims 15-16 rejected under 35 U.S.C. 103(a) as being unpatentable over combination of Uytterhoeven et al (US Patent No. 6,143,488) and EP 01096310 (EP'310) as applied to claims 1-13, 17-20 above, and further in view of Tsuzuki (US Patent No. 5,677,121). Tsuzuki discloses silver salt of an organic acid comprises silver salt of behenic acid not less than 35 mole % to 90 mole % to provide a heat-developable material that has excellent graininess and highly definite image. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the silver salt of an organic acid within the scope taught in Tsuzuki in the material taught in Uytterhoeven et al with a reasonable expectation of providing to provide a heat-developable material which has excellent graininess and highly definite image, and thereby provide a material as claimed.

Art Unit: 1752

9. Claims 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over combination of Uytterhoeven et al (US Patent No. 6,143,488) and EP 01096310 (EP'310) as applied to claims 1-13, 17-20 above, and further in view of either Goto et al (US Patent No. 6,787,298) or Farid et al (US Patent No. 5,747,235). See compound of Goto et al in columns 2-4, and Farid in the abstract and columns 16-18. The compound having property as claimed and useful as sensitizer for silver halide emulsion. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the sensitizer taught in Goto et al or Farid et al in the material of Uytterhoeven et al for same reason, and thereby provide a material as claimed.

10. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being obvious over either Ohzeki (Pub No. US 2004/0038161), Fukui et al (Pub. No. 2003/0207216), Yoshioka et al (Pub. No. 2003/0235794) or Ohzeki et al (Pub. No. 2003/0194,659) in view of Toya (US Patent No. 5,698,380).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in

Art Unit: 1752

accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Ohzeki (Pub No. US 2004/0038161), Fukui et al (Pub. No. 2003/0207216), Yoshioka et al (Pub. No. 2003/0235794) and Ohzeki et al (Pub. No. 2003/0194,659) discloses a photothermographic material having silver halide within the scope of 40 mole % to 100 mole % as claimed. . Toya discloses a heat developable material containing a silver halide grains have an average size of 0.1 nm to 100 nm and have average coverage rate of 0.005 g/m² to 1 g/m². See column 21-22, Table 2. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the silver halide within the silver halide taught in Toya in the material claimed in the material taught in over either Ohzeki (Pub No. US 2004/0038161), Fukui et al (Pub. No. 2003/0207216), Yoshioka et al (Pub. No. 2003/0235794) or Ohzeki et al (Pub. No. 2003/0194,659) in view of of Toya (US Patent No. 5,698,380) with an expectation of producing a heat developable material providing a sufficient image density, and thereby provide an invention as claimed.

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

Art Unit: 1752

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1, 10, 12-13 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4-6 of copending Application No. 10/374,046 (Pub. No. 2003/0194,667) in view of Toya (US Patent No. 5,698,380). The claims differ in the amount of silver halide. Toya discloses a heat developable material containing a silver halide grains have an average size of 0.1 nm to 100 nm and have average coverage rate of 0.005 g/m² to 1 g/m². See column 21-22, Table 2; column 2, lines 1-5; column 4, lines 29-33 the reducing agent in column 6, formula (A). It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the silver halide within the silver halide taught in Toya in the material claimed in the present claimed invention with an expectation of producing a heat developable material with sufficient silver image density, and thereby provide the claimed invention.

This is a provisional obviousness-type double patenting rejection.

13. Claims 1-9, 11-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of copending Application No. 10/403,006 (Pub No. 2003/0207216), claims 1-9 of copending Application No 10/456,629 (Pub. No. 2003/0235794); claims 1, 3, 4-15 of copending Application No 10/238,611 (Pub. No. 2003/0194659) and claims 1-20 of copending Application No 10/635,486 (Pub. No. 2004,0038161) in view of Toya (US Patent No. 5,698,380). The claims differ in the amount

Art Unit: 1752

of silver halide. Toya discloses a heat developable material containing a silver halide grains have an average size of 0.1 nm to 100 nm and have average coverage rate of 0.005 g/m² to 1 g/m². See column 21-22, Table 2; column 2, lines 1-5; column 4, lines 29-33 the reducing agent in column 6, formula (A). It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the silver halide within the silver halide taught in Toya in the material claimed in Ohzeki (Pub No. US 2004/0038161), Fukui et al (Pub. No. 2003/0207216), Yoshioka et al (Pub. No. 2003/0235794) and Ohzeki et al (Pub. No. 2003/0194,659) with an expectation of producing a heat developable material with sufficient silver image density, and thereby provide the claimed invention.

This is a provisional obviousness-type double patenting rejection.

Conclusion

14. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.


15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1752

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tchea 
January 31, 2005

Thorl Chea
Primary Examiner
Art Unit 1752

